

Big Cotton Indian Creek Watershed (HUC10 #0307010302) TMDL Implementation Plan Narrative Henry County, Georgia

Total Maximum Daily Load (TMDL) Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies.

The Big Cotton Indian Creek Watershed (HUC10 #0307010302) is located in the upper portion of the Ocmulgee River Basin in the metro Atlanta area. The local governments with interest in the Section 305(b) / Section 303(d) listed stream segment in this HUC10 watershed include: Henry County, Clayton County, and the cities of Stockbridge, Morrow, Lake City, and Forest Park. The only stream segment identified on Georgia Environmental Protection Division's 303(d) list in the Big Cotton Indian Creek HUC10 Watershed is Big Cotton Indian Creek from Panther Creek to Brush Creek.

This stream segment is listed for not meeting water quality standards for fecal coliform. Fecal Coliform bacteria are bacteria found in the intestinal tract of humans and animals. Its presence in streams, rivers, and lakes is an indicator of possible harmful pathogens. Data from USGS Monitoring Stations were used to develop the TMDL for the segment.

For each waterbody on the 303(d) list, the U.S. Clean Water Act requires a TMDL be developed for each pollutant. A TMDL is a calculation of the maximum amount of a pollutant, from both point and non-point sources that a waterbody can receive and still meet water quality standards. The U.S. EPA developed a TMDL for this stream segment in February 2002 that shows an 80% reduction in fecal coliform levels is needed.

Henry County Planning and Zoning staff identified the potential sources of pollution in this watershed. The following potential pollution sources were identified for the segment: urban runoff, leaking/failing septic systems, animal waste, SSOs, and illicit connections.

This implementation plan was developed with the help of representatives from Henry County Planning & Zoning, Henry County Water & Sewerage Authority, Henry County Environmental Health Department, and the Clayton County Water Authority. The Atlanta Regional Commission coordinated the public meetings and the input received from local stakeholders and technical advisory staff. Stakeholders were identified in this plan with the input of local governments and by searching Henry County's tax records to determine large landowners. We also used the U.S. EPA's Enforcement and Compliance History Online (ECHO) website to search for large industries in the watershed. Other stakeholders listed in the plan were included because of their interest in the affected watershed at either the May or June public meetings. There were two initial public meetings in May 2003 to educate stakeholders about the TMDL process and to solicit input from local stakeholders. These meetings were followed up with two

other meetings; one on June 30, 2003 and another on July 2, 2003 to discuss the draft implementation plans. These draft plans were mailed to all the listed stakeholders prior to the meetings. Comments and requested revisions to the draft plan have been considered in developing this final draft implementation plan.

The GA EPD will be conducting TMDL monitoring in the Ocmulgee River Basin in 2004. This data will be used to list and possibly delist stream segments. This is currently the only monitoring program planned for this Henry County stream segment.

A portion of the Henry and Clayton Counties' and the affected cities' management measures are based on their NPDES Phase I and Phase II Municipal Separate Storm Sewer System (MS4) Permit requirements. Other management measures included in the plan are voluntary such as Clayton County's Watershed Management Plan and their CMOM program. Henry County's voluntary management measures include their comprehensive inventory/mapping of the county's stormwater management system and their comprehensive inventory of industries and businesses with stormwater discharges. The Clayton County Water Authority has an extensive public education / outreach program in place to educate the general public about water quality concerns. The Henry County Government also has an extensive public education / outreach program planned for educating the public about water quality concerns. Both counties' programs include a range of activities such as educational brochures and conducting activities for students in the counties' school system. In addition Clayton County Water Authority also maintains an educational website (www.ccwal.com) and participates in the Clean Water Campaign (www.cleanwatercampaign.com). Henry County also maintains a stormwater website. An active Adopt-A-Stream program and storm drain stenciling program operate in Clayton County and Henry County has plans to start these types of programs.

The purpose of this implementation plan is to reduce or eliminate the sources of fecal coliform bacteria contributing to this stream segment in order to meet the fecal coliform water quality standard. The water quality attainment date will be ten years from the time the implementation plan is approved.

STATE OF GEORGIA REVISED TMDL IMPLEMENTATION PLAN WATERSHED APPROACH OCMULGEE RIVER BASIN

Local Watershed Governments

ATLANTA REGIONAL COMMISSION
Henry County

TMDL Implementation Plans are platforms for establishing a course of action to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies. **With input from appropriate stakeholder groups, a TMDL Implementation Plan has been developed for a cluster of impaired streams and the corresponding pollutants.** The impaired streams are located in the same sub-basin identified by a HUC10 code (Figure 1).

This Implementation Plan addresses an action plan, education/outreach activities, stakeholders, pollutant sources, and potential funding sources affecting the sub-basin. In addition, the Plan describes (a) regulatory and voluntary practices/control actions (*management measures*) to reduce target pollutants, (b) milestone schedules to show the development of the management measures (*measurable milestones*), (c) a monitoring plan to determine the efficiency of the management measures and measurable milestones, and (d) criteria to determine whether substantial progress is being made towards reducing pollutants in impaired waterbodies. The overall goal of the Plan is to define a set of actions that will help achieve water quality standards in the state of Georgia. Following this section is information regarding individual segments.

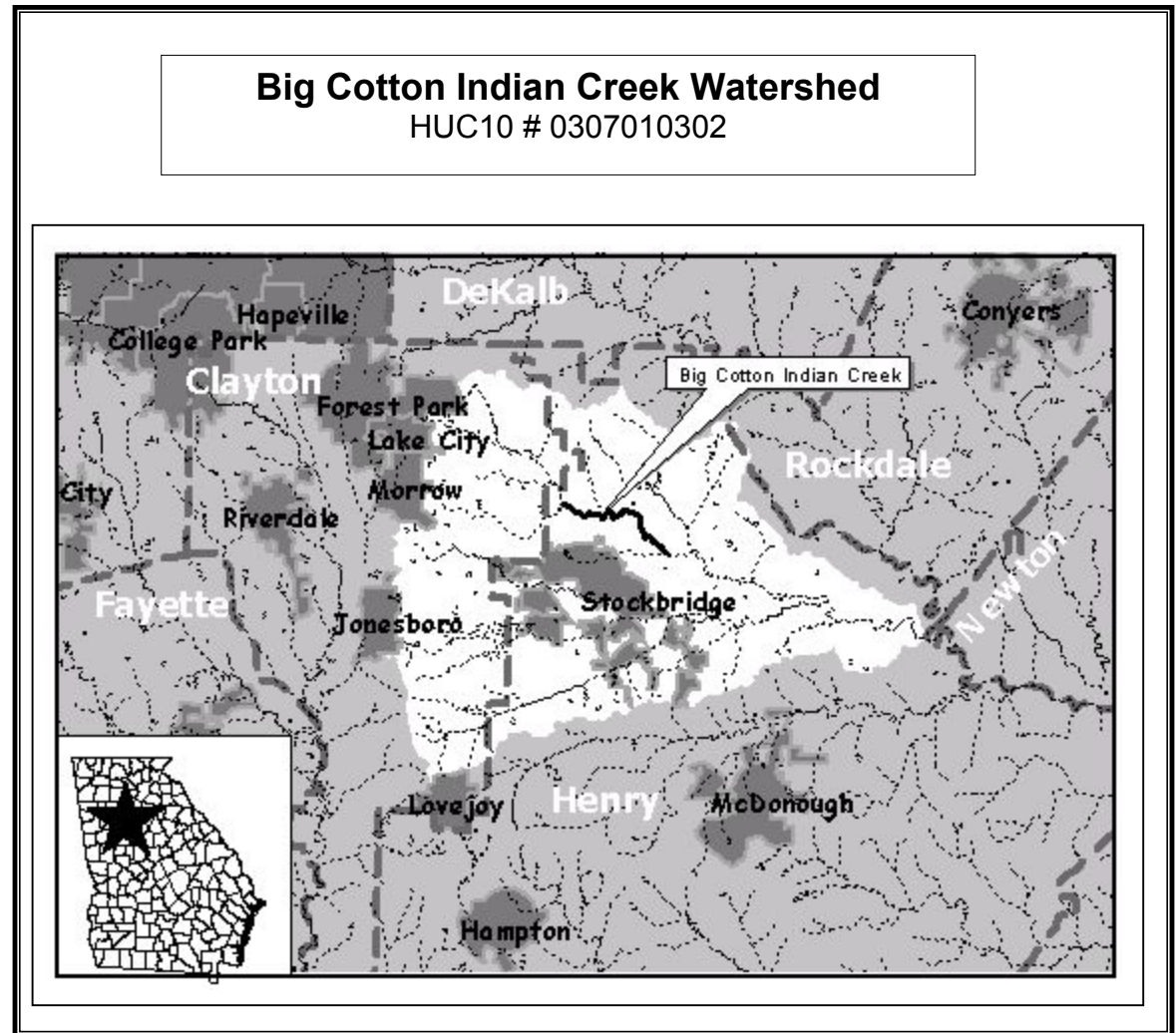


FIGURE 1

Impaired Waterbody*	Impaired Stream Location	Impairment
1. Big Cotton Indian Creek	Panther Creek to Brush Creek	Fecal Coliform (FC)

*These Waterbody Numbers are referenced throughout the Implementation Plan.

Action Plan for Big Cotton Indian Creek

Watershed: Big Cotton Indian Creek
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POLLUTANT:	SOURCE:	EFFECT:	WHAT CAN I DO?	
			At Home: Community, School	At Work: Business, Government
<input type="checkbox"/> Dissolved Oxygen (DO)	<input type="checkbox"/> Industrial	<input type="checkbox"/> Habitat	- Routine & regular maintenance of septic systems - Properly dispose of pet waste	- Routine & regular maintenance of septic systems - Report sewer leaks or septic tank failure if found
<input checked="" type="checkbox"/> Fecal Coliform (FC)	<input checked="" type="checkbox"/> Urban	<input checked="" type="checkbox"/> Recreation		
<input type="checkbox"/> Sediment	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Drinking Water		
<input type="checkbox"/> Metals	<input type="checkbox"/> Forestry	<input type="checkbox"/> Aesthetics		
<input type="checkbox"/> Fish Consumption Guidelines (FCG)	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Other (Please List)		
<input type="checkbox"/> Other (Please List)	<input checked="" type="checkbox"/> Other (Please List) Urban Runoff, Leaking / Failing Septic Systems, Animal Waste, SSOs, and Illicit Connections			

INFORMATION/EDUCATION/OUTREACH ACTIVITIES

An education/outreach component will be used to enhance public understanding of and participation in implementing the TMDL Implementation Plan. List of all previous and planned information/education/outreach activities.

Responsible Organization Or Entity	Description	Impacted Waterbodies*	Target Audience	Anticipated Dates (MM/YY)
Clayton County	Clean Water Campaign	1	General Public	Ongoing (01/00)
Clayton County	Stenciling Program	1	General Public	Ongoing (01/00)
Clayton County Water Authority	Adopt-A-Stream	1	General Public	Ongoing (04/01)
Clayton County Water Authority	Utility Bill Inserts/Newsletters	1	CCWA customers	Ongoing
Clayton County Water Authority	Educational School Activities	1	School age students	Ongoing (1995)
Clayton County Water Authority	Wetlands and Watershed Festival	1	General Public	Ongoing
Clayton County Water Authority	Watershed Management Website: www.ccwal.com	1	General Public	Ongoing (2002)
Clayton County Water Authority	Grease Education Program	1	General Public & Restaurants	Ongoing (2002)
Clayton County Board of Health	Septic Tank Workshop	1	General Public	05/03
Clayton County Board of Health	Septic Tank Workshop	1	General Public	08/03
Henry County Environmental Health	Septic Tank Maintenance Brochure	1	Homeowners	2002
Henry County Government	Develop two educational pamphlets on stormwater issues	1	Homeowners, Developers, Businesses	12/03
Henry County Government	Develop or purchase educational materials for outdoor classroom.	1	Children in 5 th grade and their parents	12/03
Henry County Government	Develop quarterly newspaper articles and/or newsletters on the stormwater management program	1	General Public	09/03 – 12/07
Henry County Government	Seek watershed-based solutions to water quality problems through sharing resources, promoting uniformity, and coordinating policies with other governmental jurisdictions within the county and watersheds. This will be accomplished through quarterly meetings beginning in fall 2003.	1	Neighboring Governmental Jurisdiction	09/03 – 12/07
Henry County Government	Henry County Stormwater Website: http://www.co.henry.ga.us/PlanningZoning/StormWater/StormWater.htm	1	General Public	Ongoing
Henry County Government	Adopt-A-Stream	1	General Public	07/06
Henry County Government	Community Stormwater Hotline	1	General Public	12/03
Henry County Government	Awards program for volunteer groups, subdivisions, businesses, builders, and developers for exhibiting exceptional steps toward stormwater/water quality management	1	General Public	10/05
Henry County Government	“Watershed Days” program	1	General Public	11/04
Henry County Government	Storm drain stenciling day in the county - “Adopt-A-Storm Drain” day.	1	General Public	12/04
Henry County Government	Quarterly meetings of the Stormwater Advisory Group	1	Residents, Developers, Environmental Groups, County & City Employees	06/03

STAKEHOLDERS

EPD encourages public involvement and the active participation of stakeholders in the process of improving water quality. Stakeholders can provide valuable information and data regarding their community and the impaired water bodies and can provide insight and/or implement management measures.

List of local governments, agricultural organizations or significant landholders, commercial forestry organizations, businesses and industries, and local organizations including environmental groups and individuals with a major interest in this watershed.

Name/Organization	Address	City	State	Zip	Phone	E-Mail
GA EPD, Water Protection Branch	4220 International Pkwy, Suite 101	Atlanta	GA	30354	(404) 675-1751	
GA Adopt-A-Stream	4220 International Pkwy, Suite 101	Atlanta	GA	30354	(404) 675-1636	
Georgia Soil and Water Conservation Commission	1500 Klondike Road Suite A109	Conyers	GA	30094	770-761-3020	kshahlaee@gaswcc.org
Henry County Schools (Superintendent)	396 Tomlinson Street	McDonough	GA	30253	770-957-6601	
Henry County Extension Service	86 Work Camp Road	McDonough	GA	30253	770-954-2060	showing@uga.edu
NRCS (McDonough, GA Office)	333 Philips Drive	McDonough	GA	30252	770-957-5705	
Henry County Board of Commissioners	140 Henry Parkway	McDonough	GA	30253	770-954-2405	
Henry County Planning & Zoning (Director)	140 Henry Parkway	McDonough	GA	30253	770-954-2979	dhall@co.henry.ga.us
Henry County Water and Sewerage Authority (Pat Hembree)	1695 Highway 20 West	McDonough	GA	30253	770-957-6659	
City of Stockbridge (City Manager)	4545 North Henry Boulevard	Stockbridge	GA	30281	770-389-7905	
Henry County Environmental Health	137 Henry Parkway	McDonough	GA	30253	(770) 954-2250	gascott@gdph.us.state.ga.com
Clayton County	7960 N. McDonough Street	Jonesboro	GA	30236	770-477-3664	tim.gilliam@co.clayton.ga.us
Clayton County Water Authority	1600 Battle Creek Road	Morrow	GA	30260	678-422-2838	kzimmerman@ccwal.com
Clayton County Board of Health	1380 Southlake Plaza Drive	Morrow	GA	30260	770-961-8399	wjhoward@gdph.state.ga.us
Clayton County Extension Service	1262 Government Circle, Suite 40	Jonesboro	GA	30236	770-473-5438	lgarrett@uga.edu
Clayton County Public Schools (Superintendent)	1058 Fifth Ave.	Jonesboro	GA	30236	770-473-2747	
City of Forest Park	785 Forest Parkway SE	Forest Park	GA	30050		
City of Lake City	5535 North Parkway	Lake City	GA	30260		
City of Morrow	1500 Morrow Road	Morrow	GA	30260		
NRCS (McDonough, GA Office)	333 Philips Drive	McDonough	GA	30252	770-957-5705	
ABC Compounding Co, Inc	6970 Jonesboro Road	Morrow	GA	30260		
Onyk Environmental Services	5371 Cook Road	Morrow	GA	30260		
Safety Kleen Corp. Morrow	7027 Commercial Drive	Morrow	GA	30260		
Sherwin Williams Company Morrow	6795 South Main Street	Morrow	GA	30260		
Rex Furniture Co, Inc	3738 Rex Road	Rex	GA	30273		
Tire Centers Incorporated	4382 Old Dunn Ct.	Ellenwood	GA	30049		
USA Fort Gillem	4653 North Second Street	Forest Park	GA	30297		
TGPL Station 0120	683 Valley Hill Road	Stockbridge	GA	30281		

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WATER BODIES/STREAMS COVERED IN THIS PLAN:

These impaired streams are located in the same sub-basin identified by a HUC10 code. Most of the information contained in this section comes from the 303(d) list and has been completed by employees of the EPD Water Protection Branch. Data that placed stream on 303(d) list will be provided upon request.

Waterbody Name #1	Location	Miles/Area Impacted	Use Classification	Partially Supporting/ Not Supporting (PS/NS)
Big Cotton Indian Creek	Panther Creek to Brush Creek	5 miles	Fishing	NS
Primary County	Secondary County	Second RDC	Source (Point/ Nonpoint)	
Henry			Nonpoint (Urban Runoff)	
Pollutants	Water Quality Standards	Required Reduction	TMDL ID	Date TMDL Established
Fecal Coliform	1,000 per 100 ml (geometric mean Nov-April) 200 per 100 ml (geometric mean May-Oct)	80.0%		February 2002

POLLUTANT SOURCES

It is important to recognize the potential source(s) causing water quality impairment. Each source must be controlled to comply with target TMDL/Load Allocations for each pollutant. Included is a description of how the sources contribute to the impairment and the waterbody that is impaired.

List of major nonpoint source categories and sub-categories or individual sources (Urban Runoff, Agriculture, Forestry, Municipal Sewage Treatment Plant)

Pollutant	Sources of Pollutants	Description of Contribution To Impairment	Impacted Waterbodies*
Fecal Coliform	Urban Runoff	Nonpoint source / stormwater runoff	1
Fecal Coliform	Septic tank systems	Leaking / runoff from failing septic tank systems, including faulty drain fields	1
Fecal Coliform	Animal wastes	Nonpoint source - pets and wildlife	1
Fecal Coliform	SSOs	Overflows from sanitary sewer system due to blockages from grease, roots, vandalism / pipe failures	1
Fecal Coliform	Illicit connections	Improper connections of sanitary sewer flows to the storm drain system	1

MANAGEMENT MEASURES, MEASURABLE MILESTONES AND SCHEDULE

(i.e. Local codes and ordinances, Erosion and Sedimentation Control, Storm Water Management, Local water resource monitoring)

The following table lists management measures that have been or will be implemented to achieve water quality standards and the load reductions established in the TMDL. The management measures, including regulatory or voluntary actions or other controls by governments or individuals, specifically apply to the pollutant and the waterbody for which the TMDL was written. A description is provided of how these management measures are/will be accomplished through reliable and effective delivery mechanisms, and how these management measures are/will help achieve the target TMDL. Included is the source of the pollutant, anticipated/past effectiveness of the management measure (very effective, somewhat effective, not effective), the current status (i.e. enforced, in-progress, planning), and measurable milestones and schedule. Milestones are used to measure progress in attaining water quality standards and to determine whether management measures are being implemented.

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
NPDES Phase II MS4 Municipal Stormwater Permit	Henry County Government	Requires jurisdiction to have a comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, pollution prevention, permitting and reporting, and program implementation plans.	March 2003	Planning	Regulatory
Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness		
Fecal Coliform	Illicit discharges, Animal Waste	1	The goals of this program are designed to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity in the impaired stream corridor.		
Measurable Milestones		Schedule		Comments	
		Start	End		
Refer to Annual Report for project effectiveness.		2004	Ongoing	Notification of Intent (NOI) is currently under review by GA EPD. Annual reporting will be based on the permit signing date.	
Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
NPDES Phase II MS4 Municipal Stormwater Permit	City of Stockbridge	Requires jurisdiction to have a comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, construction site runoff control, post construction runoff control, pollution prevention, permitting and reporting, and program implementation plans.	March 2003	Planning	Regulatory
Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness		
Fecal Coliform	Illicit discharges, Animal Waste	1	The goals of this program are designed to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity in the impaired stream corridor.		
Measurable Milestones		Schedule		Comments	
		Start	End		
Refer to Annual Report for project effectiveness.		2004	Ongoing	Notification of Intent (NOI) is currently under review by GA EPD. Annual reporting will be based on the permit signing date.	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Phase I MS4 Municipal Stormwater Permit	Clayton County	Under this permit, Clayton County is required to have a comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, permitting and reporting, and program implementation.	09/1997	In-Progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	This program is intended to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity.

Measurable Milestones	Schedule		Comments
	Start	End	
Annual Reports submitted to EPD	1997	Ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Phase I MS4 Municipal Stormwater Permit	City of Forest Park	As a Co-permittee with Clayton County, the City participates in Clayton County's comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, permitting and reporting, and program implementation.	09/1997	In-Progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	This program is intended to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity.

Measurable Milestones	Schedule		Comments
	Start	End	
Information submitted annually to Clayton County for Annual Report	1997	Ongoing	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Phase I MS4 Municipal Stormwater Permit	City of Lake City	As a Co-permittee with Clayton County, the City participates in Clayton County's comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, permitting and reporting, and program implementation.	09/1997	In-Progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	This program is intended to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity.

Measurable Milestones	Schedule		Comments
	Start	End	
Information submitted annually to Clayton County for Annual Report	1997	Ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Phase I MS4 Municipal Stormwater Permit	City of Morrow	As a Co-permittee with Clayton County, the City participates in Clayton County's comprehensive stormwater program, which includes public education and participation, illicit discharge detection and elimination, permitting and reporting, and program implementation.	09/1997	In-Progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	This program is intended to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity.

Measurable Milestones	Schedule		Comments
	Start	End	
Information submitted annually to Clayton County for Annual Report	1997	Ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Watershed Management Plan	Clayton County Water Authority	Assessment of watersheds and suggested protection measures.	April 2001	In-Progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	This program is intended to improve water quality conditions and/or prevent further degradation of water quality and biotic integrity.

Measurable Milestones	Schedule		Comments
	Start	End	
Annual Watershed Reports submitted to EPD in accordance with water and wastewater NPDES permits.	04/01	On-going	Plan and recommended ordinances adopted by the CCWA Board and the Clayton County Board of Commissioners in April 2001.

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
IAW O.C.G.A. 290-5-26	Clayton County Board of Health	Rules and regulations for the installation and repair of on-site sewage management systems.	June 30, 1980	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Septic Systems	1	This program ensures septic systems are installed and repaired in accordance with established procedures and specifications.

Measurable Milestones	Schedule		Comments
	Start	End	
Continue the process of reviewing the installation of septic systems as a part of the development review process	1980	Ongoing	
Continue to identify and respond to instances of septic system failure. Enforcement responses to failing septic systems are by complaint only. Home and business owners who don't have a complaint lodged against them can consult with Environmental Health about their failing systems and can pay for an onsite assessment for repair.	1980	Ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Clayton County Stormwater Management Ordinance	Clayton County	Control stormwater runoff to the MS4 within unincorporated areas of Clayton County	1995	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	Provides consequences for illicit discharges and connections to the MS4.

Measurable Milestones	Schedule		Comments
	Start	End	
Industrial inspections and illicit discharge investigations	1995	Ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Grease Trap Inspection Program	Clayton County Water Authority	Inspection of grease traps	2001	In-Progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	SSO's	1	Inspection of grease traps should reduce levels of grease in the sanitary sewer system, thereby reducing overflows.

Measurable Milestones	Schedule		Comments
	Start	End	
Inspections	2001	Ongoing	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
CMOM Program/ Sanitary Sewer Evaluation Program	Clayton County Water Authority	Inspection and evaluation of sanitary sewers using smoke testing, TV testing, and walking easements. Modeled sanitary sewer system to determine areas prone to overflows. Developed a master plan to improve capacity in the system and reduce frequency of SSOs.	Ongoing	In-Progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	SSO's	1	Identifying infrastructure replacement needs should reduce the number and intensity of SSO's in the watershed.

Measurable Milestones	Schedule		Comments
	Start	End	
Inspections	Ongoing	Ongoing	
Wastewater Modeling & CIP Project Identification	2000	2003	
Capital Improvement Project Implementation	2003	Ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Clayton County Land Development Guidelines	Clayton County	Includes stormwater quantity and quality requirements for new developments	1999	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	Requires post-development controls for stormwater quantity and quality intended to reduce stormwater pollution loads from new developments.

Measurable Milestones	Schedule		Comments
	Start	End	
Ordinance Adopted	1999	Ongoing	
Water Quality Requirements Added	2001	Ongoing	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Illicit Discharge Ordinance	Henry County Government	The ordinance should establish specific guidelines for detection, elimination, and enforcement of non-stormwater discharges to the storm sewer system.	12/03	Planning	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Illicit Discharges	1	Although illicit discharges are not thought to be a significant source of water pollution within the county, the ordinance would help prevent future development and redevelopment from creating illicit/illegal discharges.

Measurable Milestones	Schedule		Comments
	Start	End	
Continue review of existing ordinances dealing with prevention and enforcement. Develop/Adopt changes.	Dec 2003		
Review regulations and develop/adopt changes	2005		

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Comprehensive Map/Inventory of Stormwater Management System	Henry County Government	A comprehensive storm sewer mapping/GIS program will be implemented. Items to be mapped and compiled into the GIS program include storm system conveyances, inlets, outfalls, stormwater detention ponds, drainage basin, and receiving waters.	Ongoing	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	A comprehensive mapping/GIS program allows the county to have extensive knowledge of the locations for all stormwater structures and conveyances.

Measurable Milestones	Schedule		Comments
	Start	End	
Continue mapping/GIS program already in progress. Evaluate funding needed for the next year. Complete 20% of total work.		Dec 2003	
Continue mapping/GIS program already in progress. Evaluate funding needed for the next year. Complete 50% of total work.		Dec 2004	
Continue mapping/GIS program already in progress. Evaluate funding needed for the next year. Complete 75% of total work.		Dec 2005	
Continue mapping/GIS program already in progress. Evaluate funding needed for the next year. Complete 100% of total work.		Dec 2006	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Comprehensive inventory of industries & businesses with stormwater discharges	Henry County Government	Field visits and evaluations of all industries and businesses in the unincorporated and incorporated areas of the county will be conducted. A database of the facilities and the results of the inspections will be maintained.	June 2004	Planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	Maintaining a comprehensive inventory/database of all industries and businesses with stormwater discharges will allow the county to keep track of the types of industries, how many exist, and their location. Having this information will assist in developing priority locations for spills, prevention, and/or containment plans and potential contributors/sources of pollution should a problem be observed.

Measurable Milestones	Schedule		Comments
	Start	End	
Develop a database and field form		June 2004	
Visit and evaluate 20% of the industries and businesses within the county		Dec. 2004	
Visit and evaluate 40% of the industries and businesses within the county		Dec. 2005	
Visit and evaluate the remaining 40% of the industries and businesses within the county		Dec. 2006	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Dry-weather Screening Program	Henry County Government	Initiate a screening program for visual inspection of the stormwater outfalls. Initial inspections will be developed that will assist in the process of determining, through visual observation, potential illegal/illicit discharge connections. Laboratory testing should occur if dry weather flow is observed. Analyses should be conducted, at a minimum, for fecal coliform, BOD, DO, nutrients (phosphorous & nitrogen), and heavy metals.	December 2003	Planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Illicit Discharges	1	Dry-weather screening allows the true extent of any illicit discharges throughout the county to be assessed.

Measurable Milestones	Schedule		Comments
	Start	End	
Inspect 20 % of the outfalls (20 % of total completed)	Dec. 2003	2004	
Inspect 30 % of the outfalls (50 % of total completed)		2005	
Inspect 25 % of the outfalls (75 % of total completed)		2006	
Inspect 25% of the outfalls (100 % of total completed)		2007	
Continue dry-weather screening		2008	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
Develop Septic System Maintenance Standards	Henry County Government	Coordination with the county's Department of Environmental Health will allow resources to combine and will greatly increase the amount of people that may be informed on septic system maintenance techniques and procedures.	2003	Planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Leaking/Failing Systems	Septic 1	Septic systems are a primary source for increased nitrogen concentrations within many surface waters. In many cases, the property owner does not maintain the system properly. This causes problems to occur that many times result in septic system discharging into nearby streams and rivers.

Measurable Milestones	Schedule		Comments
	Start	End	
Continue coordination efforts and discuss potential efforts for additional teaming	2003	Ongoing	
Develop standards for septic system maintenance		Dec 2006	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/Projected Date	Status	Regulatory/Voluntary
As-built checklist for stormwater infrastructure information	Henry County Government	A checklist will be developed to specify requirements for all as built drawings regarding the stormwater system/facilities to maintain/update the stormwater system inventory in a GIS.	2003	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	The county currently requires as-built drawings on all new developments with the survey tied to county survey monuments. By standardizing the stormwater related information that is included on these drawings, the county and cities will be able to easily update the comprehensive inventory with the new structures in the county's and cities' GIS.

Measurable Milestones	Schedule		Comments
	Start	End	
Develop an as-built checklist		Dec 2003	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Land Disturbance Activities Training and Certification Program	Henry County Government	Develop a training and certification program for individuals involved with land disturbance activities. The program should include local engineers, developers, contractors, builders, county personnel, landscape architects, and others who intend to perform similar construction.	2004	Planning	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	A certification program for erosion and sediment control and stormwater management ensures everyone involved in land disturbing activities is aware of proper construction, maintenance, and importance of sediment and erosion control measures and stormwater management facilities.

Measurable Milestones	Schedule		Comments
	Start	End	
Evaluate funding and requirements for a certification program		Dec 2004	
Adopt program as part of regulations/requirements		May 2005	
Establish certification dates	2005		Certification Dates: February 2005, August 2005
Implement / require certification	2006		Certification Dates: February 2006, August 2006
Program required	2007		Certification Dates: February 2007, August 2007

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Ordinance Revisions	Henry County Government	Review the current Erosion & Sediment control ordinance and modify as appropriate. Include requirements for professionals involved in erosion and sediment control design and construction to be certified by Henry County. Include requirements for pollution prevention at the construction site through the preparation of an Erosion, Sedimentation & Pollution Control Plan to address issues such as trash, construction debris, leaking vehicles, storage of chemicals, etc.	2003	In-progress	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	There are proposed changes to the state's erosion and sediment control program. Ordinance medications will probably be required to implement these changes. In addition, channel protection and conservation subdivision ordinances will provide further guidelines for construction activities.

Measurable Milestones	Schedule		Comments
	Start	End	
Continue review of existing ordinances dealing with construction site runoff. Develop / adopt changes.	2003	Dec 2003	
Review regulations and develop / adopt changes.	2007	Dec 2007	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Adopt the Georgia Stormwater Management Manual (GSMM)	Henry County Government	Adopt the Georgia Stormwater Management Manual (GSMM) as the county's stormwater design manual. The county and cities may also develop an addendum to the manual which has county specific requirements that are not covered by the GSMM.	2003	Planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	The county staff reviewed the manual and believes the design methodologies would benefit the county's water quality.

Measurable Milestones	Schedule		Comments
	Start	End	
Adoption of the GSMM		Dec 2003	
County specific addendum to GSMM		Dec 2005	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Stormwater Ordinance (Article IV. Stormwater Runoff, Henry County Code Sec. 3-6-61)	Henry County Planning & Zoning	Ordinance to address non-point source pollution.	1994	In-progress	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	Gives the inspectors a way to address non-point source pollution that is discharged into the MS4 system.

Measurable Milestones	Schedule		Comments
	Start	End	
Conduct development plan review to ensure compliance with County stormwater runoff regulations	1994	Ongoing	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Stormwater Management Audit / Assessment	Henry County Government	Internal assessment of stormwater pollution prevention plan (map of facility and responsibilities for upkeep): municipal operations, automobile maintenance, car washing, illegal dumping control, landscaping and lawn care, parking lot and street cleaning, roadway and bridge maintenance, septic system controls, storm drain system cleaning, stormwater detention basins maintenance, alternative products, hazardous materials storage, road salt application and storage, spill response and prevention, used oil recycling, materials management, leaking fluids from vehicles, and street sweeping.	Dec 2004	Planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	The county needs to ensure that they are meeting all applicable stormwater requirements.

Measurable Milestones	Schedule		Comments
	Start	End	
Begin assessment of county operations	Dec 2004	Dec 2006	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Stormwater BMP Guidance Document for Municipal Operations	Henry County Government	Following the audit / assessment, prepare a BMP procedures and guidance manual for Henry County and the cities' departments to minimize impact of municipal operations on stormwater runoff. This document should address all of the activities identified in the audit / assessment and focus on any common problem areas identified.	June 2006	Planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	A consolidated document that addresses all of the activities that the cities and county performs that have an impact on stormwater would help county and city employees be an example to the community.

Measurable Milestones	Schedule		Comments
	Start	End	
Develop BMP guidance document		June 2006	Distribute BMP Guidance Document and educate all appropriate Henry County and city staff in the use of the Stormwater BMP guidance document.
Conduct first training session		Dec 2006	
Complete BMP Guidance document training for all appropriate county staff		Dec 2007	

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Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
Stormwater Complaint Database	Henry County Government	The master stormwater complaint database will be administered by the stormwater hotline operator but should be accessible by all departments involved in stormwater related activities. The stormwater hotline operator would log all complaints in the database and direct the call to the correct department. The database will include at least the following information: source of the complaint, name of the person or business, address, phone number, description of the complaint, data fields to track the investigation and resolution of the complaint. The master stormwater complaint database can be tied to the county's GIS.	2004	Planning	Voluntary

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	This allows personnel responsible for this program to maintain a record of complaints, dumping locations, industrial discharges, and how they were resolved over an extended period of time. As the program progresses the procedures may be revised to better suit the needs of the county and public.

Measurable Milestones	Schedule		Comments
	Start	End	
Develop a master complaint database		Dec 2004	
Record all new complaints and stormwater related information and track until a resolution is reached.	Dec 2004	Ongoing	

Regulation/Ordinance or Management Measure	Responsible Government, Organization or Entity	Description	Enacted/ Projected Date	Status	Regulatory/ Voluntary
IAW O.C.G.A. 290-5-26	Henry County Environmental Health	Rules and regulations for installation and repair of on-site sewage management systems.	June 30, 1980	Enforced	Regulatory

Pollutant(s) Affected	Sources of Pollutant(s)	Impacted Waterbodies*	Anticipated or Past Effectiveness
Fecal Coliform	Urban Runoff	1	This program ensures septic systems are installed and repaired in accordance with established procedures and specifications.

Measurable Milestones	Schedule		Comments
	Start	End	
Ensure that properties with onsite sewage management systems are properly reviewed for permits. Continue the process of reviewing the installation of septic systems as a part of the development review process	1980	Ongoing	
Continue to identify and respond to instances of septic system failure. Enforcement responses to failing septic systems are by complaint only. Home and business owners who don't have a complaint lodged against them can consult with Environmental Health about their failing systems and can pay for an onsite assessment for repair.	1980	Ongoing	

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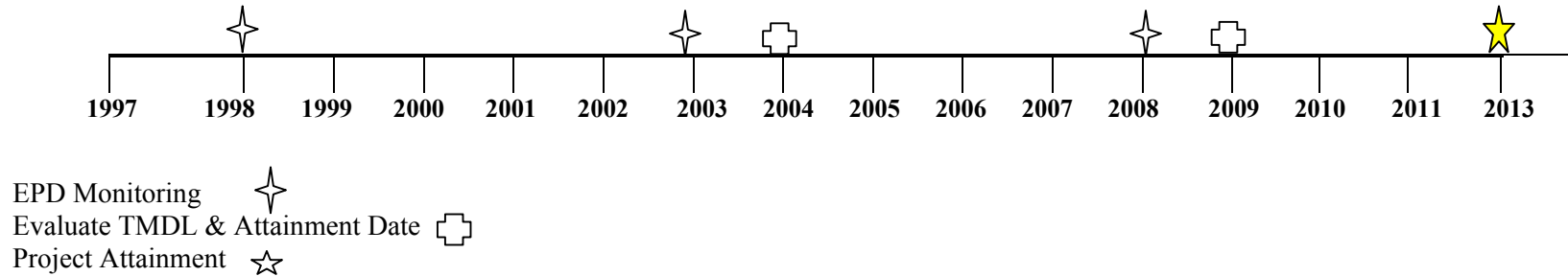
POTENTIAL FUNDING SOURCES

The identification and discussion of dedicated funding is important in determining the economic feasibility of the above-mentioned management measures.

Funding Source	Responsible Authority	Status	Anticipated Funding Amount	Impacted Waterbodies*
General Revenues	Clayton County	Ongoing	To be determined	1
Water and Sewer Rates	Clayton County Water Authority	Ongoing	To be determined	1
General Revenues	Henry County	Ongoing	To Be Determined	1

PROJECTED ATTAINMENT DATE

The projected date to attain and maintain water quality standards in this watershed is 10 years from acceptance of the TMDL Implementation Plan by EPD.



MONITORING PLAN

The purpose of this monitoring plan is to determine the effectiveness of the target TMDL and the management measures being implemented to meet water quality standards. List of previous, current or planned/proposed sampling activities or other surveys. (Monitoring data that placed stream on 303(d) list will be provided if requested.)

Name Of Regulation / Ordinance Or Management Measure	Organization	Impacted Waterbodies*	Pollutants	Purpose/Description	Time Frame		Status (Previous, Current, Proposed)
					Start	End	
TMDL Evaluation and Monitoring	Georgia EPD	1	FC	TMDL Evaluation and Monitoring for 305(b) and 303(d) lists for Georgia	2004	2005	Proposed
Dry-weather Screening Program	Henry County Government	1	FC	Laboratory testing should occur if dry weather flow is observed.	Dec 2003	2008	Proposed

CRITERIA TO DETERMINE WHETHER SUBSTANTIAL PROGRESS IS BEING MADE

The following set of criteria will be used to determine whether any substantial progress is being made towards reducing pollutants in impaired waterbodies and attaining water quality standards. Discussion on each criterion is recorded in the space provided. Additional relevant criteria are presented in comments.

- Percent of concentration or load change (monitoring program) _____

If monitoring results show that it is unlikely that the TMDL will be adequate to meet water quality standards, revision of the TMDL may be necessary.

- Categorical change in classification of the stream (delisting the stream is the goal) _____

- Regulatory controls or activities installed (ordinances, laws) _____

- Best management practices installed (agricultural, forestry, urban) _____

COMMENTS

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**Environmental Protection Division of the Department of Natural Resources,
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TOGETHER WE CAN MAKE A DIFFERENCE!